

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Appln. No: 10/575,227
Applicant: M. KAWAI et al.
Filed: April 7, 2006
Title: SCANNER APPARATUS
TC/A.U.: 2625
Examiner: Ngon Binh Nguyen
Confirmation No.: 6987
Docket No.: SEI-120

DECLARATION OF MR. MASAYOSHI KAWAI UNDER 37 C.F.R. 1.132

Mail Stop Amendment
Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

Sir:

1. I, Masayoshi Kawai, am an inventor of the above-identified utility patent application.
2. I understand that claims of this application have been rejected by the Examiner based on U.S. Patent No. D514,575 to Sugitani et al. ("D514,575"), which claims the ornamental design of an image reader for a computer.
3. I understand that D514,575 issued from U.S. Application No. 29/189,758, which was filed on September 11, 2003 ("U.S. Filing Date"), and which claims priority of JP 2003-022949, which was filed on August 7, 2003 ("Foreign Priority Date").
4. To the extent that the invention conceived by me and the other inventors of this application is described in D514,575, our invention was made prior to the U.S. Filing Date of D514,575, and was thereafter described in D514,575 by the inventors of D514,575.

5. Together with the other inventors of this application, I prepared a Patent, Utility Model Application Request Paper ("Request Paper") before the U.S. Filing Date and before the Foreign Priority Date of D514,575. Copies of that Request Paper are attached to this Declaration as follows:
 - 5.1. A redacted copy of the Request Paper is attached as Exhibit 1.
 - 5.2. A redacted copy of an English-language translation of the Request Paper is attached as Exhibit 2, which lists my name and the names of the other inventors of this application under "Name of the Inventors."
6. The Request Paper illustrates and describes features of an image scanner apparatus, including embodiments of a scanner apparatus shown and described in the Request Paper (Exhibit 1) at, for example, Pages 2/5 and 4/5 and elsewhere.
7. The invention illustrated and described in the Request Paper was conceived before the U.S. Filing Date of D514,575.
8. As detailed in the following subparagraphs, the invention illustrated and described in the Request Paper was explained to inventors of D514,575.
 - 8.1. I, together with the other inventors of this application, attended a meeting with two inventors of D514,575 (Mr. Minoru Sugitani and Mr. Takeshi Chujou) after we prepared the Request Paper and before the U.S. Filing Date and the Foreign Priority Date of D514,575.
 - 8.2. The meeting was held at PFU Limited (the assignee of this application and the assignee of D514,575) in Ishikawa Prefecture of Japan.
 - 8.3. During the meeting I, together with the other inventors of this application, explained our invention to Mr. Minoru Sugitani and Mr. Takeshi Chujou using the Request Paper.
9. The inventors of the ornamental design claimed in D514,575 made no inventive contribution to the functional features claimed in this utility patent application.
10. Thus, to the extent that the invention claimed in this application is described in D514,575, the relevant subject matter of D514,575 describes my work and that of the other inventors of this application, was derived from us, and is not an invention "by another."

I hereby declare that all statements made herein of my own knowledge are true and that all statements made on information and belief are believed to be true; and further that these statements were made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both, under 18 U.S.C. 1001 and that such willful false statements may jeopardize the validity of the application or any patent issued thereon.

Full name: Masayoshi Kawai

Signature: Masayoshi Kawai

Date: 6/Dec/2010

Exhibit 1 - Request Paper
Exhibit 2 - Translated Request Paper

1108525

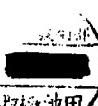
EXHIBITS

EXHIBIT 1

特許・実用新案 出願依頼書

受付番号

03P00040

譲渡証書					受付	(担当) 部長	課長・PM
請受人 株式会社 ピーエフユー殿 下記発明考案について国内外で特許、若しくは実用新案登録を受ける権利の全部を 貴社に譲渡したことと相違ありません。 請渡人 株式会社 ピーエフユー内							
発明考案者氏名(注1)(フリガナ)	朱肉印	社員コード	職種コード	所属部署名(内線番号)	依頼元番号		
筆頭 1 (カワイ マヨシ) 川井 政佳	印	386201	765702	第二事業部 第一技術部 (7573 — 2243)	発明日		
		持分 (34.50 %)			開発製番		
2 (カネヒコ ハオ) 金光 憲雄	印	799500	765700	第二事業部 (7171 — 4630)	開発製品名		
		持分 (33.50 %)			実施状況		
3 (アマガハタミオ) 天海 医在	印	772437		第二事業部 第一技術部 (7171 — 4640)			
		持分 (33 %)					
4 ()	印			(—)	契約関係	<input checked="" type="checkbox"/> 1. なし <input type="checkbox"/> 2. 共同開発 <input type="checkbox"/> 3. 受託開発 <input type="checkbox"/> 4. その他 届属先: ■1. 単独 <input type="checkbox"/> 2. 共有 <input type="checkbox"/> 3. 社外 出願人: ■1. P F U <input type="checkbox"/> 2. 富士通 <input type="checkbox"/> 3. その他 ()	
		持分 (%)		(—)			
5 ()	印			(—)			
		持分 (%)		(—)			
名称	イメージスキャナ装置			請求項(案)の数: 3	出願期限		
公知例調査		□ 知財Gと実施、□ 独自に実施(検索履歴を添付)、□ 未調査					

1. 目的

本発明は、フラットベッド読取部と、ADF(Auto Document Feeder)を有するイメージスキャナ装置に関し、

① 使用する設置環境に合わせ、装置の操作性を変化させることが可能な装置構造。

② 装置の占有面積を小さくすることができる装置構造。

③ ADFモデル、フラットベッドモデルといった様々なバリエーションモデルを製造側が簡単に設定できること。

上記 ①, ②, ③の達成を目的とする。

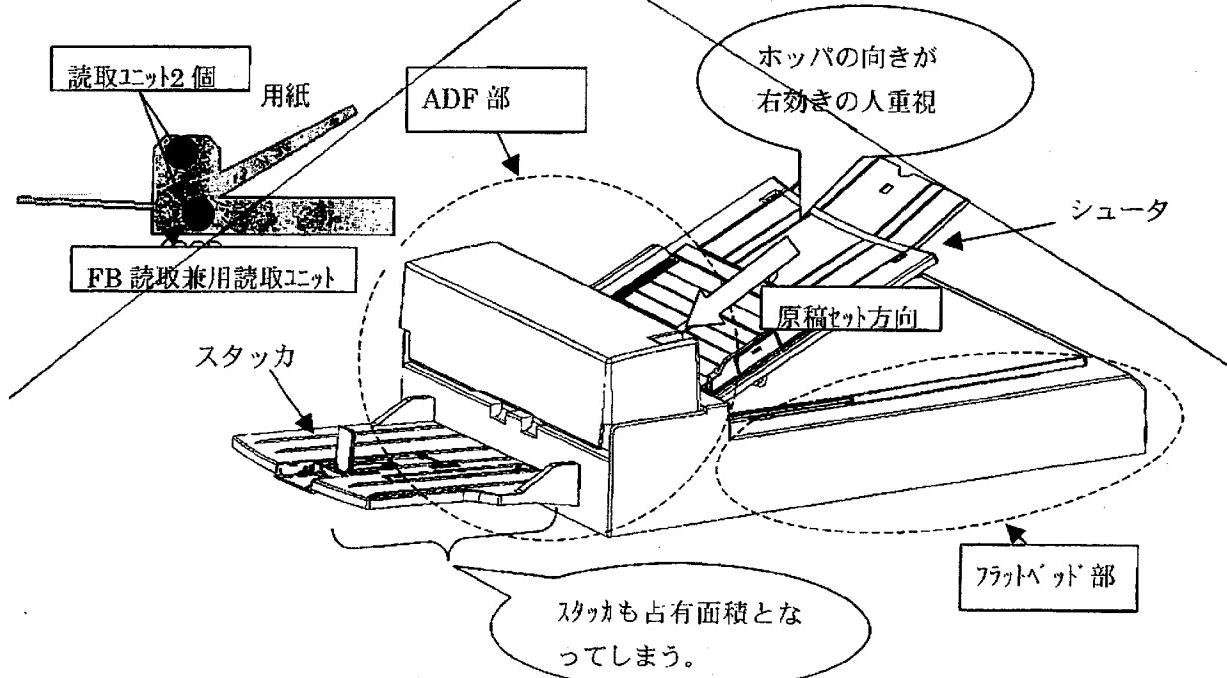
2. 構成

【当社の従来技術】

2つの読み取りユニットを配備し、ADF使用時の両面読み取り及びフラットベッド使用時も兼用構造。

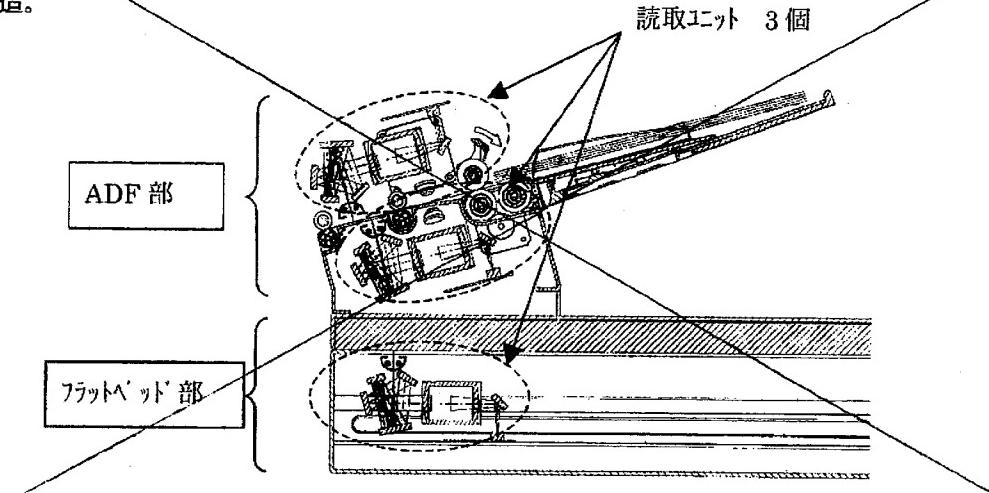
ADFは、装置左側に配備されているため、シートへの原稿セットは、右利きの人は操作しやすいが、

左利きの人には難しさがあった。また、装置の占有面積は、スタッカの長さも入ってしまう構造であった。

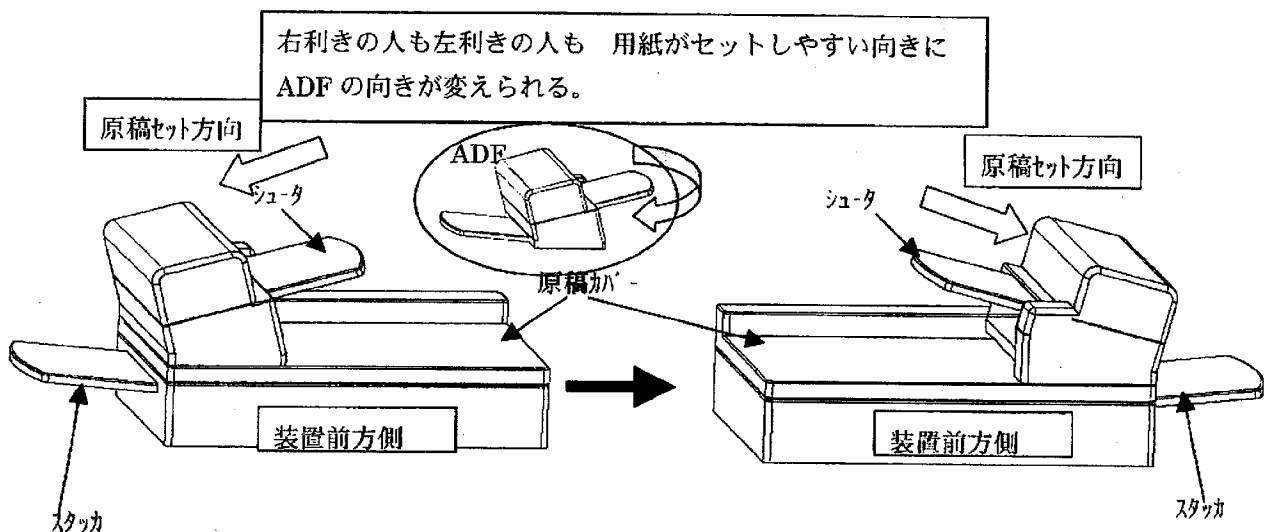


【本発明】

装置に、~~ADF~~部の読み取りユニット2個、~~フラットベッド~~部の読み取りユニット1個、計3個の読み取りユニットを実装し、~~ADF~~ユニットのみでも読み取りが行える構造とし、~~ADF~~ユニットが装置原稿カバー上の任意の位置に配備でき、かつ~~ADF~~の向きを回転可能とする構造。

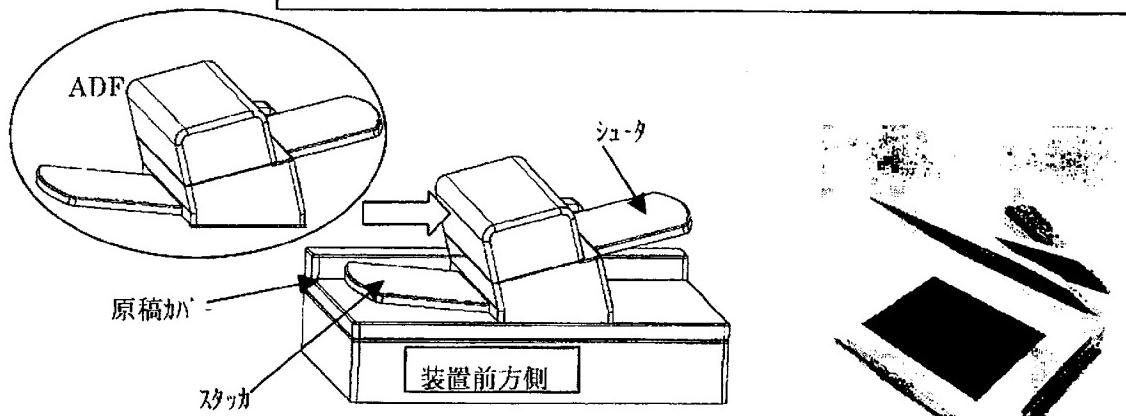


<<本発明の図 その1(目的①の部分)>>



<<本発明の図 その2(目的②の部分)>>

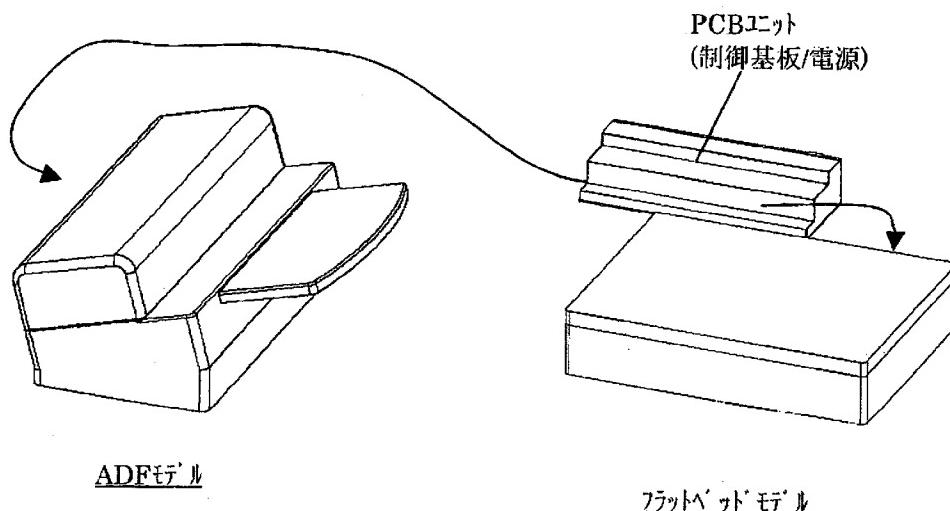
ADFを移動して原稿がーの中央に置けば シュータ／スタッガ込みで、最小の占有面積の形態。



原稿がーを開いたイメージ図

<<本発明の図 その3(目的③の部分)>>

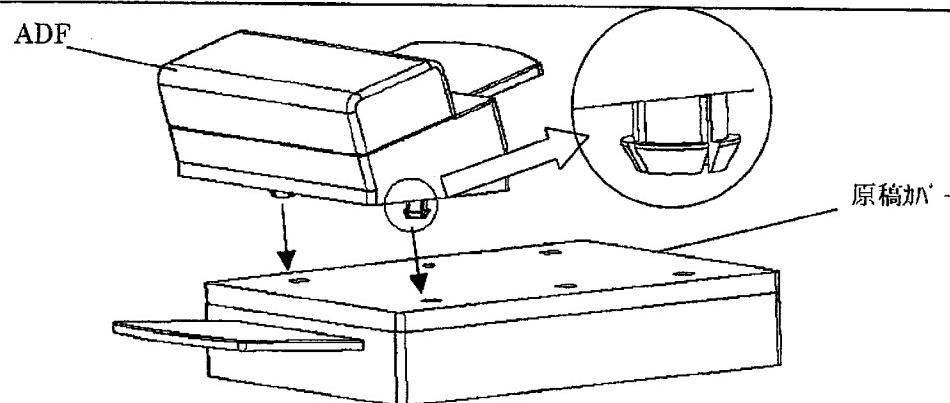
本発明の装置構造によって、(3つの読み取エットとADFが自由に取り外しもできる形態であること。) ADF部とフラットベッド部が独立して対応としての機能である、読み取が行えるため、 ADFモデル／フラットベッドモデル／ADF+フラットベッドモデル といった3種のモデルを製造側が新規に開発を行わずとも、簡単に準備ができることができる。
下図の絵は、ADFモデルとフラットベッドモデルを示した図であり、1例としてPCBユニットをどちら側に搭載するかで2モデルが簡単にできる図を示した。
当然、フラットベッドモデルにADFを搭載すれば、ADF+FBモデルになる。



<<本発明の図 その4（目的達成技術）>>

下図の機構で原稿カバーとADFの接合を行う。

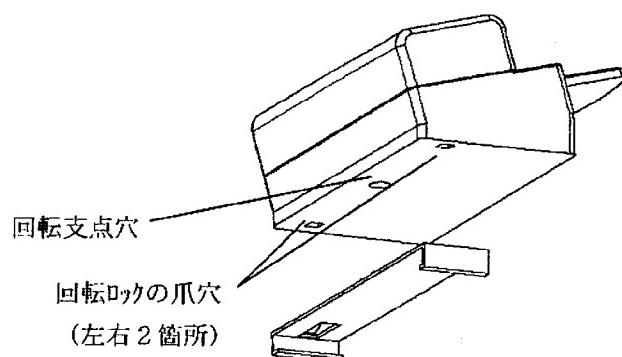
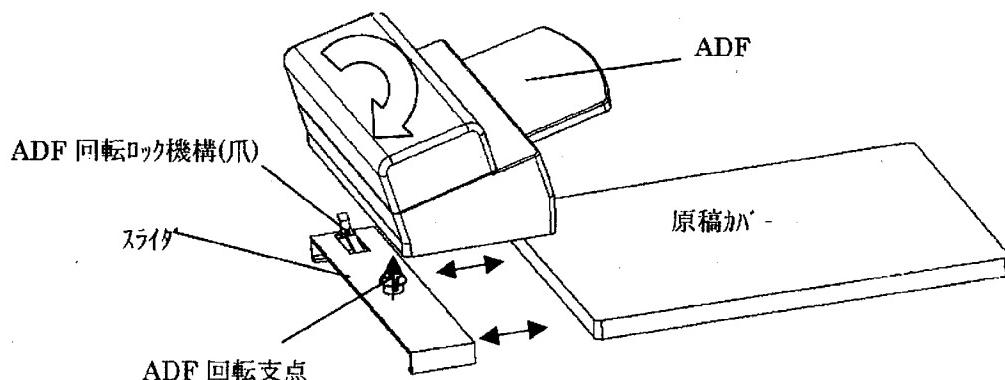
ADFユニット底面から突起（爪形状）を形成し、原稿カバーに配備した穴に差し込む機構。
(向きも変えられる)



回転支点／爪を配備したスライドを 原稿カバーにレール機構で差込むことで左右に移動可能。

また、スライドには回転支点があり、ADFの向きを変えることが可能。

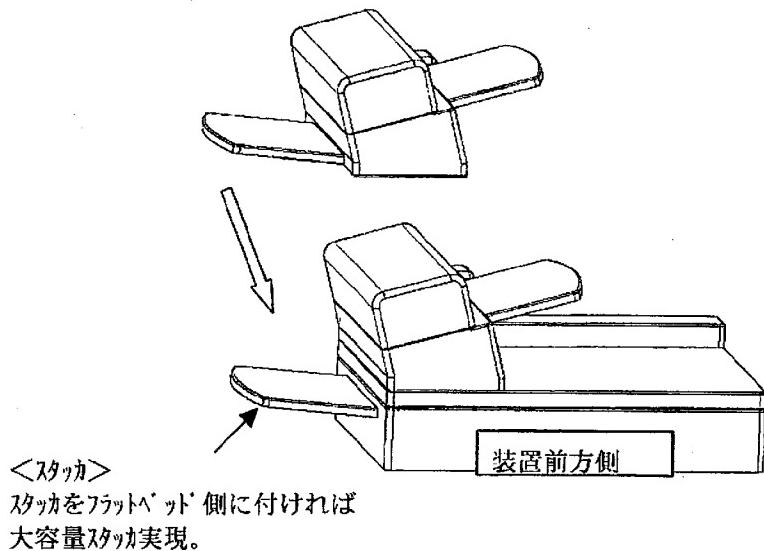
ADF向きの保持は、スライドに実装されたロック機構（爪）で行う。



原稿カバーと ADF の接合機構図

<<本発明の図 その5（追加効果）>>

大容量スタッカにも対応可能。



<スタッカ>
スタッカをフラットベッド側に付ければ
大容量スタッカ実現。

3【特許請求の範囲】

~~フラットベッド 読取部と、ADF(Auto Document Feeder)を有するイメージキャッピング装置で、以下の項目を請求の範囲とする。~~

1. イメージキャッピング装置の原稿台面上で ADFユニットの向き、位置を自由自在に可変させる構造案。
2. ADFモデル、フラットベッドモデルといった様々なバリエーションモデルを製造側が簡単に設定できる構造。
3. ADFに実装されているスタッカをフラットベッド側に付け替えることで、大容量スタッカにも対応可能な構造。
~~(本発明の図 その5)~~

1. 目的

本発明は、フラットベッド読取部と、ADF (Auto Document Feeder) を有するイメージスキャナ装置に関し、

- ①. フラットベッド、ADF の同時読み取りを可能にする。
 - ②. 装置の占有面積を小さくする。
 - ③. 使用する設置環境に合わせ、装置の操作性を変化させる。
- 上記 3 点の達成を目的とする。

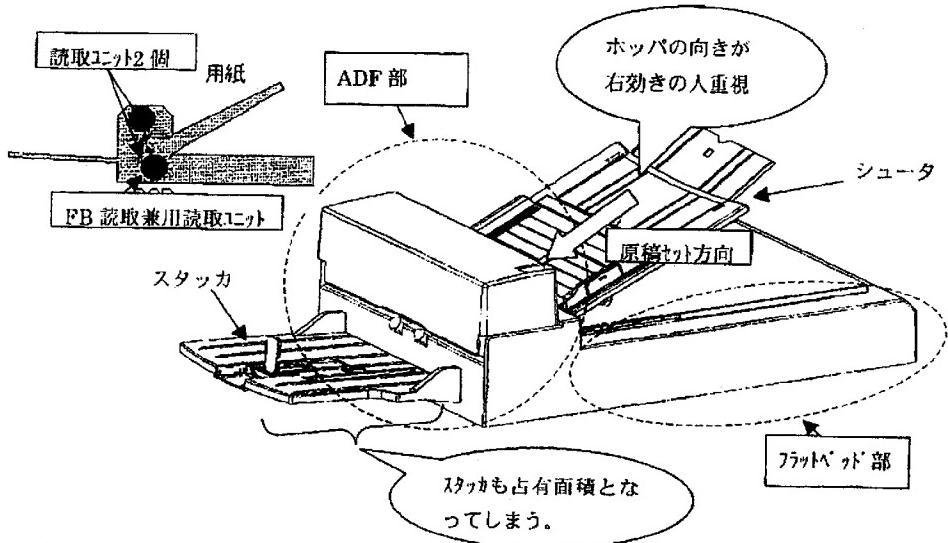
03P00040

2. 構成

【当社の従来技術】

2つの読み取りユニットを配備し、ADF 使用時の両面読み取り及びフラットベッド使用時も兼用構造。

ADF は、装置左側に配備されているため、シーラへの原稿セットは、右利きの人は操作しやすいが、左利きの人には難しさがあった。



【本発明】

装置に、ADF 部の読み取りユニット 2 個、フラットベッド部の読み取りユニット 1 個、計 3 個の読み取りユニット及び 2 つのインターフェースを実装し、ADF、FB の同時読み取りが行える構造とし、ADF ユニットが装置原稿カバー上の任意の位置に配備でき、かつ ADF の向きを回転可能とする構造。

読み取りユニット 3 個

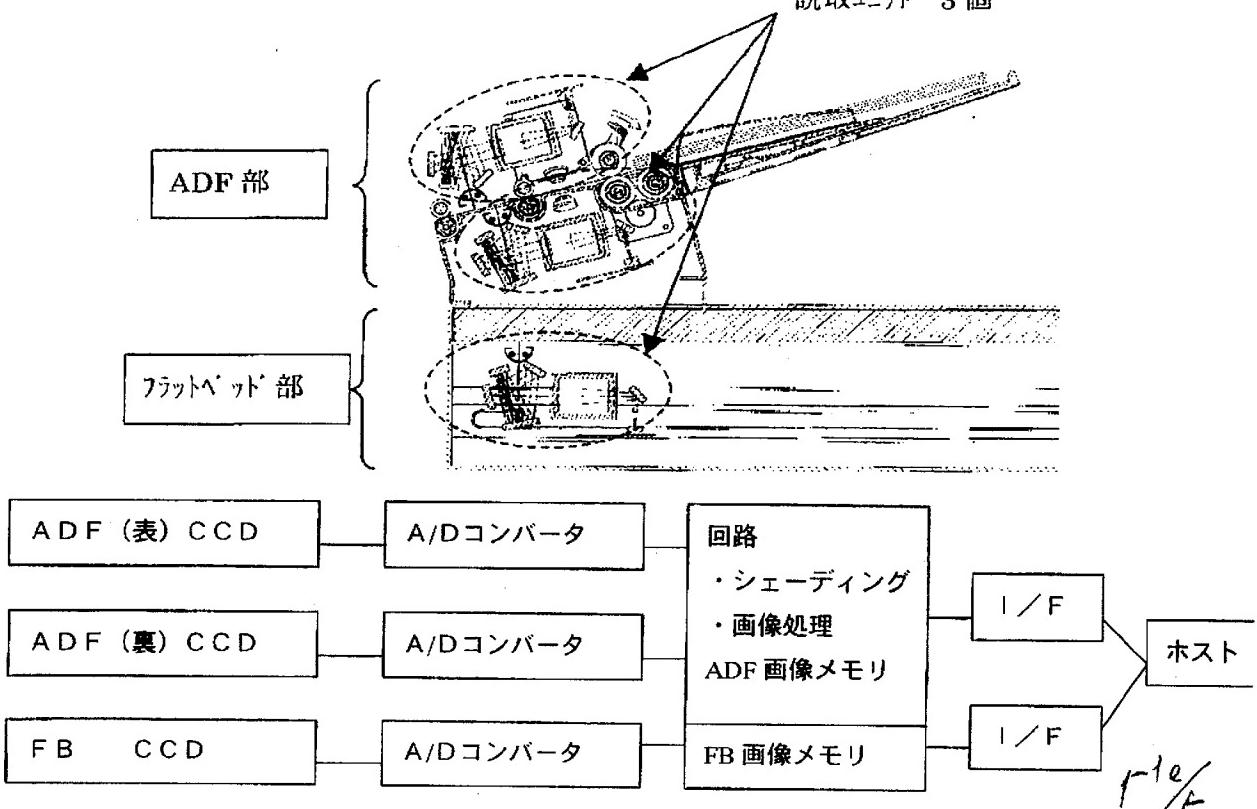


EXHIBIT 2

PATENT, UTILITY MODEL APPLICATION REQUEST PAPER

Reception No.

03P00040

ASSIGNMENT					IP Dept.	Dept. Chief	Sec. Chief
Assignee: PFU Limited							
"ASSIGNEE" has acknowledged of the receipt of the assignment that the following ASSIGNORS hereby, sell, assign and transfer to ASSIGNEE the entire and exclusive right title and interest to the invention both at home and abroad.					Assignor: c/o PFU Limited		
Name of the Inventors		L.S.	Employee Code	Ladder Code	Department (Ext.)	Reference Number	
First inventor	筆頭 (カワイ マヨシ) Masayoshi Kawai		386201	765702	2nd Operation Dept., 1st Engineering Div. (7573 — 2243)	Date of the Invention:	
	2 (金元 伸一) Norio Kanemitsu		799500	765700	2nd Operation Dept. (7171 — 4630)	Project Number: Project Name:	
	3 (アマガイ タミオ) Tamio Amagai		772437	Equity (33%)	2nd Operation Dept., 1st Engineering Div. (7171 — 4640)	實施 状況	Implementation Status: Contractual Relationship:
	4 ()			持分 (%)	(—)	契約 関係	① Nothing 2. Joint Development 3. Entrusted Development 4. Other
Title of the Invention:				(Expected) Number of claims : 3	出願 期限	Belongings: ① Solo 2. Joint 3. Outside Applicant: ① PFU 2. FUJITSU 3. Other	
名称 Image Scanner Apparatus Prior Art Search		Originally Conducted (Search History is attached)	請求項(案)の数: 3		Application Due Date		
公知例調査		<input type="checkbox"/> Conducted with IP Group	<input type="checkbox"/> 独自に実施(検索履歴を添付)、 <input type="checkbox"/> Not Conducted				

1. OBJECTS

The present invention relates to an image scanner having a Flatbed-type scanning part and an ADF (Auto Document Feeder).

① Operability of the apparatus can be changed in accordance with the installation environment for using the apparatus.

② An area occupied by the apparatus can be reduced.

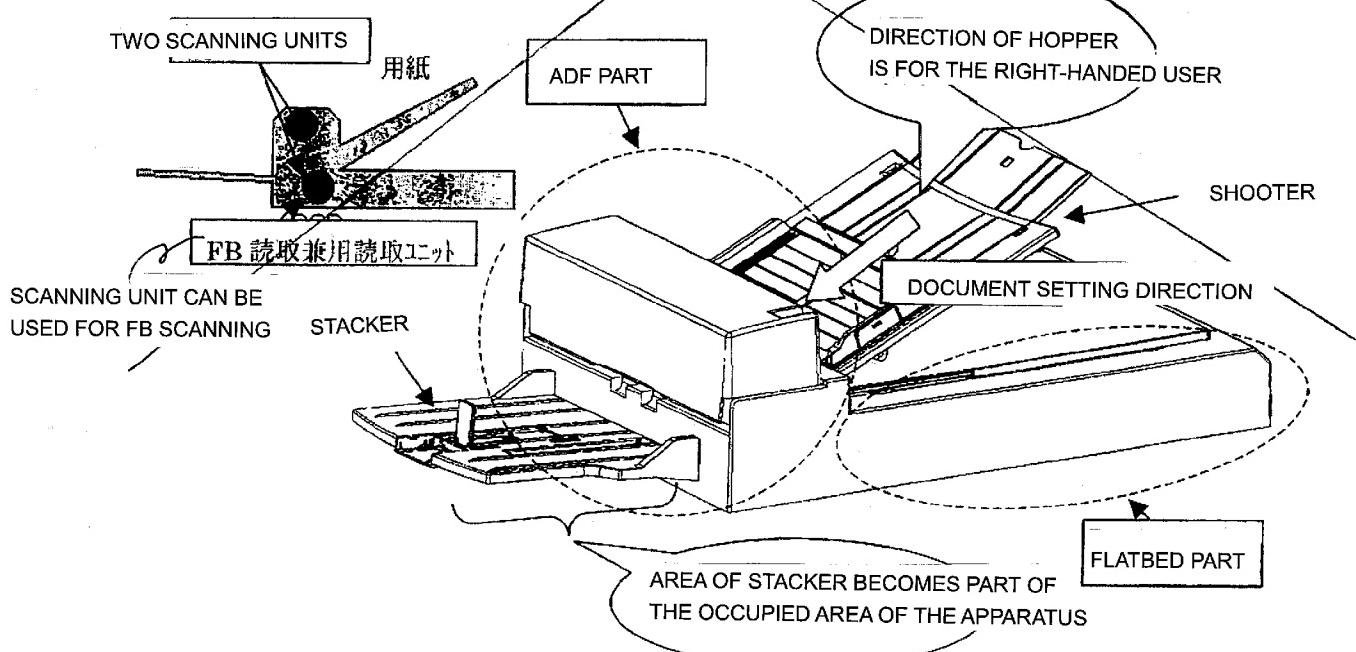
③ A wide variety of models, such as the ADF-model, the flatbed-model, etc., can be developed easily by a manufacturing department.
The objects of the present inventions are to achieve the above three points.

2. CONFIGURATION

[Prior Art in Our Company]

Two scanning units are provided for the apparatus, and the two scanning units are used in both a both-side scanning in the operation of the ADF and a scanning in the operation of the Flatbed scanning part.

Since the ADF is provided at the left side of the apparatus, it is easy for a right-handed user to set documents on a shooter of the ADF, but it is not easy for a left-handed user to set documents on the shooter. Further, the area of a stacker becomes part of the area occupied by the apparatus.



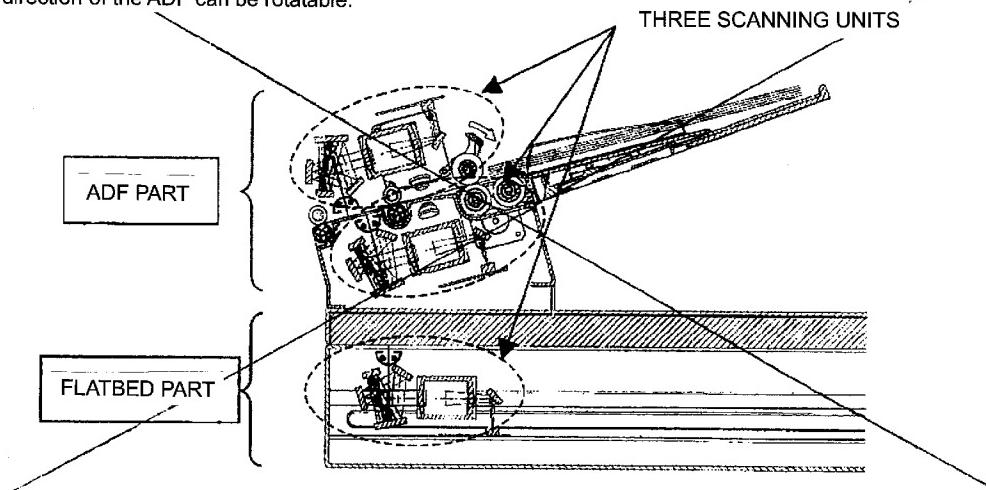
PATENT, UTILITY MODEL APPLICATION REQUEST PAPER

Reception No.

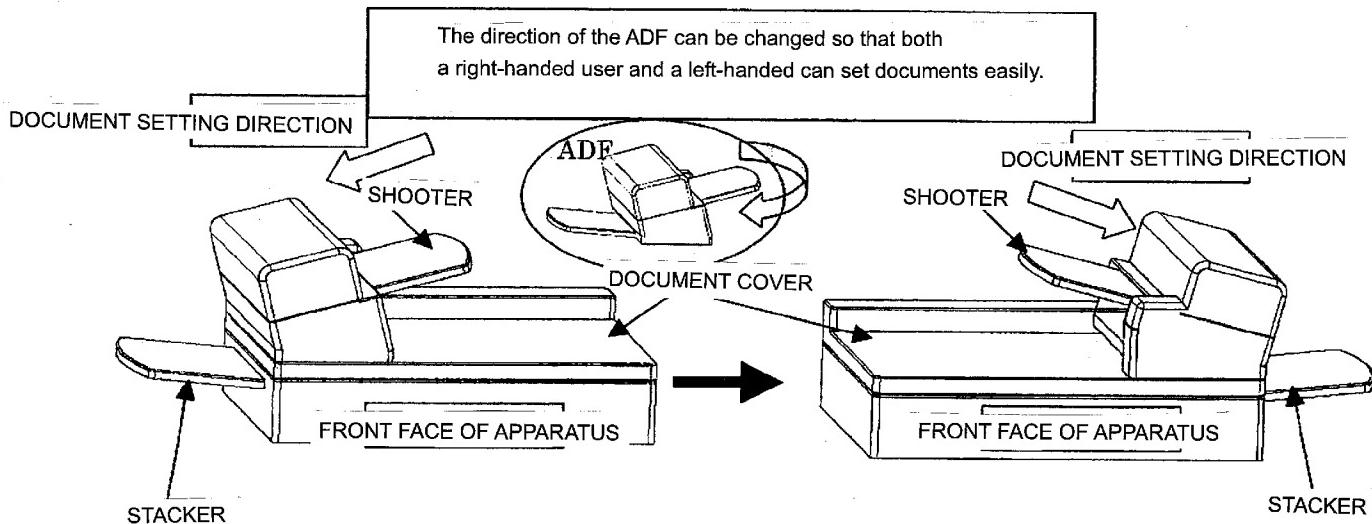
03P00040

[Present Invention]

Mechanism: Three scanning units (two scanning units in an ADF part and one scanning unit in a Flatbed scanning part) are mounted, so documents can be read only by using the ADF, the ADF can be mounted at an arbitrary position on the surface of a document cover of the apparatus, and the direction of the ADF can be rotatable.



<<Figure 1 of the present invention (Regarding the object ①)>>

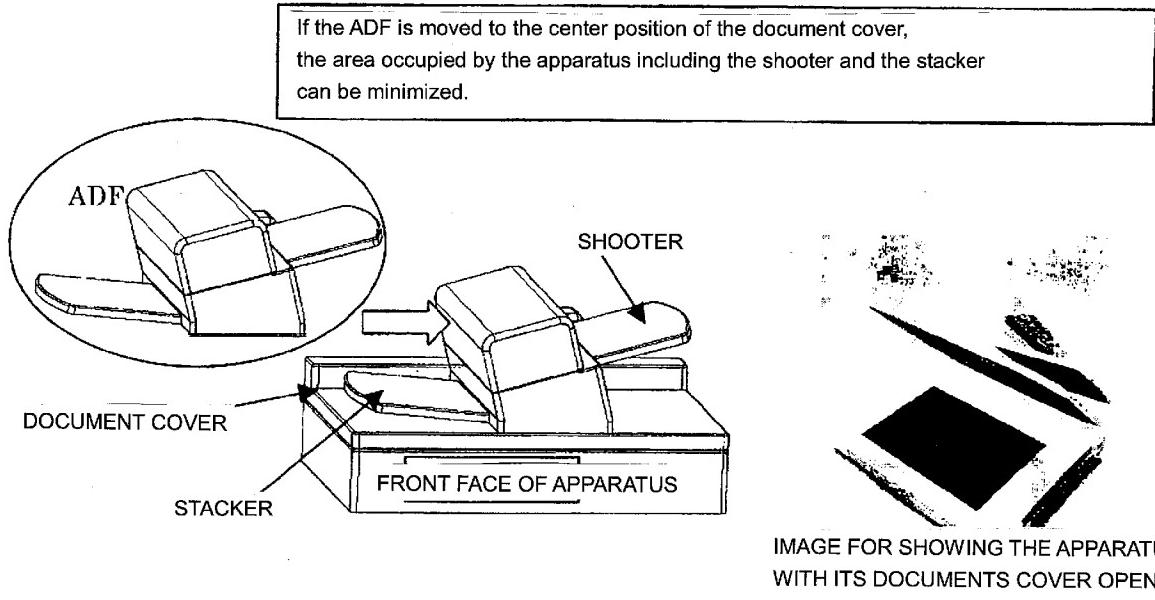


PATENT, UTILITY MODEL APPLICATION REQUEST PAPER

Reception No.

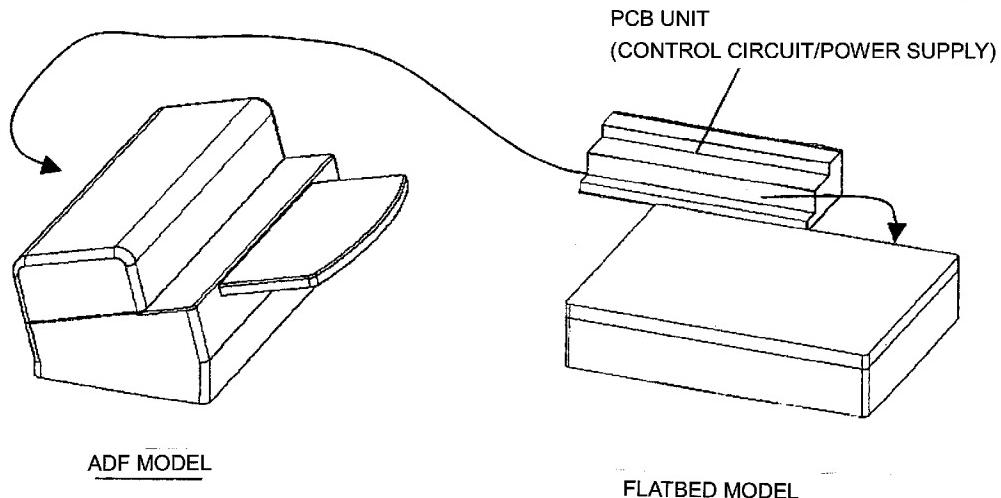
03P00040

<<Figure 2 of the present invention (Regarding the object ②)>>



<<Figure 3 of the present invention (Regarding the object ③)>>

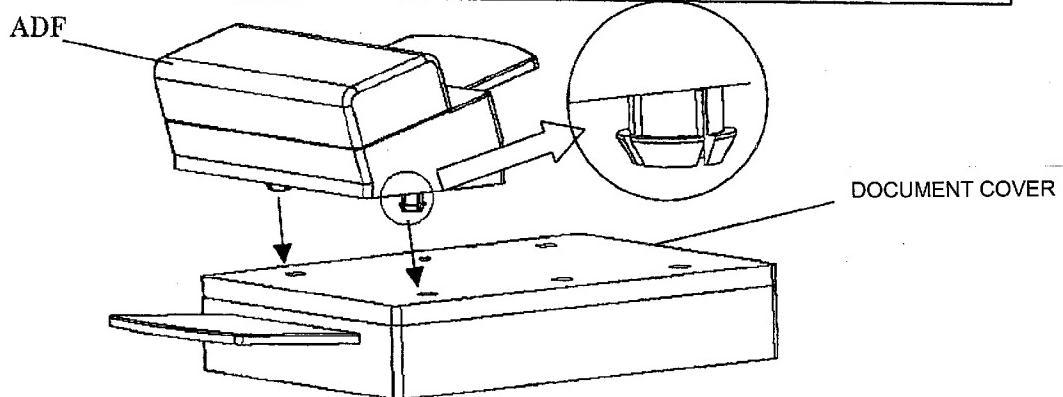
In accordance with the configuration of the present invention, three kinds of scanners including an ADF model, a Flatbed model and an ADF&Flatbed model can be prepared easily without any new research and development by the manufacturing department because the ADF part and the Flatbed part can read documents independently (and three scanning units and the ADF can be detachable from the apparatus freely.).
 The following figures indicate the ADF model and the Flatbed model. Further, the figures suggest that two models can be prepared easily in accordance with the mounted position of a PCB unit (on the ADF model or on the Flatbed model).
 It is natural that the ADF&Flatbed model is prepared by mounting the ADF model on the Flatbed model.



<<Figure 4 of the present invention (Technology for achieving the object)>>

The document cover and the ADF are coupled by using a mechanism indicated in the following figures.

Mechanism: Coupling protrusions (nail-like shape) are provided on the bottom surface of the ADF unit and the coupling protrusions are inserted into holes provided on the document cover.
 (The direction of the ADF can be changed by using this mechanism.)



Mechanism: A rotatable pivot point and a nail are provided on a slider, and the slider is inserted into a rail mechanism of the document cover so that the slider is moveable to the left and right along the rail mechanism. The direction of the ADF can be changed by using the rotatable pivot point provided on the slider. The ADF is fixed by a rock mechanism (nail) provided on the slider so that the direction of the ADF is determined.

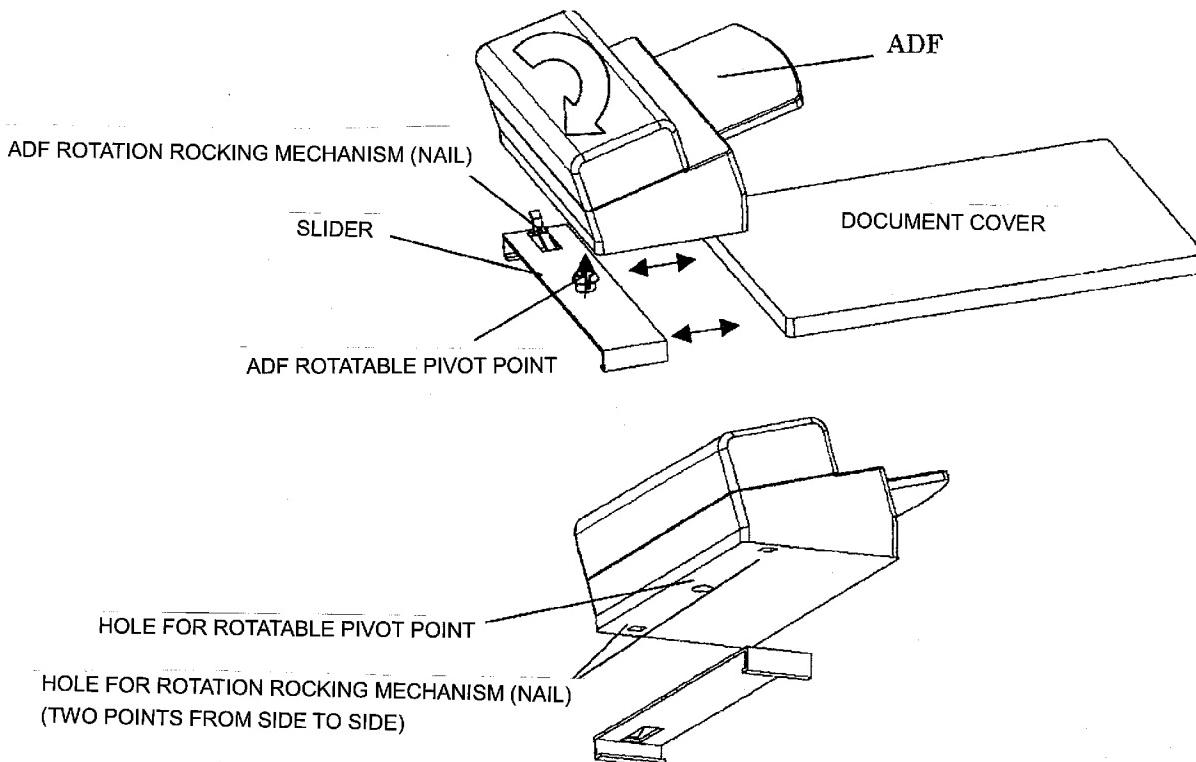
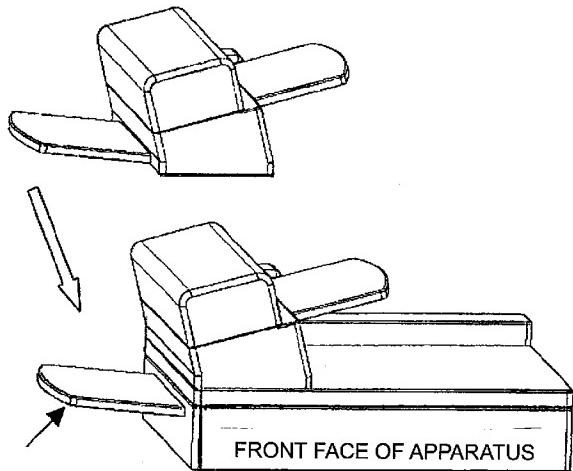


Figure for coupling mechanism between document cover and ADF

<<Figure 5 of the present invention (Additional effects)>>

The present invention is applicable to a large capacity stacker.



<STACKER>

If the stacker is mounted on the Flatbed-type scanning part,
the stacker can be used as a large capacity stacker.

3. CLAIM

An image scanner comprising a Flatbed scanning part and an ADF (Auto Document Feeder), and further including the following mechanisms:

1. The direction of the ADF can be changed freely on the surface of a document cover of the image scanner.
2. A wide variety of models, such as an ADF-model, a Flatbed-model, etc., can be developed easily by a manufacturing department.
3. The stacker can be used as a large capacity stacker if the stacker is replaced from the ADF to the Flatbed-type scanning part (please see figure 5 of the present invention).

1. OBJECTS

The present invention relates to an image scanner having a Flatbed-type scanning part and an ADF (auto-document feeder).

① Reading with the Flatbed-type scanning part and reading with the ADF can be performed simultaneously.

② An occupied area of the apparatus can be reduced.

③ Operability of the apparatus can be changed in accordance with the installation environment for using the apparatus.

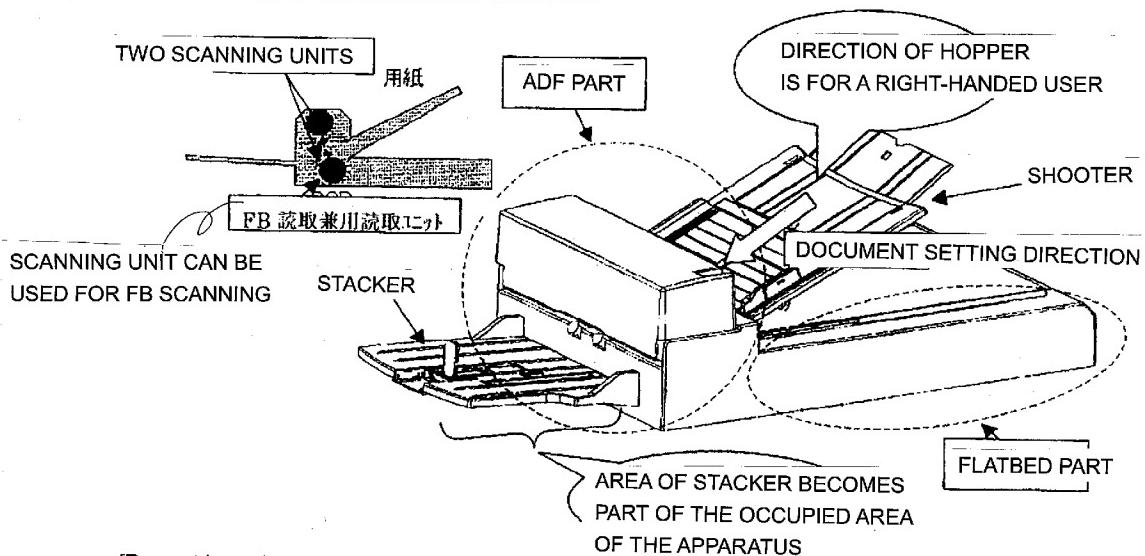
The objects of the present inventions are to achieve the above three points.

2. CONFIGURATION

[Prior Art In Our Company]

Two scanning units are provided for the apparatus, and the two scanning units are used in both a both-side scanning in the operation of the ADF and a scanning in the operation of the Flatbed scanning part.

Since the ADF is provided at the left side of the apparatus, it is easy for a right-handed user to set documents on a shooter, but it is not easy for a left-handed user to set documents on the shooter.



[Present Invention]

Mechanism: Three scanning units (two scanning units in an ADF part and one scanning unit in a Flatbed scanning part) and two interfaces are mounted, so reading with the Flatbed-type scanning part and reading with the ADF can be performed simultaneously, the ADF can be mounted at an arbitrary potion on the surface of a document cover of the apparatus, and the direction of the ADF can be rotatable.

